

CHAPTER 2- TRAFFIC CONTROL - 01554

Traffic Control is of major importance in the Construction and Maintenance of highways and bridges. Care should always be taken when working around or next to the motoring public.

Traffic Control devices provides positive guidance. In some instances, they supplement the regulations or warnings of other devices such as traffic signs or signals. In other instances, they are used alone, producing results that cannot be obtained by any other device. Accordingly, Traffic Control effectively conveys certain regulations and warnings that may not otherwise be clearly understandable.

However, Traffic Control Devices have definite limitations. They may be obscured in snow. They may not be clearly visible when wet, and may not be durable when subjected to heavy traffic. Despite these limitations, under favorable conditions, traffic control devices can convey warnings and information to the driver without diverting their attention from the roadway.

I. TRAFFIC CONTROL MANAGER

The Resident Engineer assigns the Traffic Control Manager (TCM) to traffic control.

The TCM should have knowledge of the following manuals

1. Manual of Uniform Traffic Control Devices for Streets and Highways (Parts 1, 5 and 6)
2. The UDOT Construction, Manual of Instruction
3. Standard Drawings for Traffic Control (TC)
4. Standard Specifications for Traffic Control
5. Approved Traffic Control Plan & MOT Plan

II. DUTIES

Keeps an up to date diary, complete with all details of the Contractor's traffic control.

Throughout the life of the project, checks all Traffic Control daily and records in a diary. Take pictures of all pertinent construction signing on the day of setup and when any significant changes are made.

Makes sure all signs, barriers, and channelizing devices conform to Standard Specifications and Drawings.

In case of an accident, contact the Region Safety/Loss Control, and Resident Engineer. Receives all pertinent information from investigating officers. Make sure all reports are filled out, and take any pictures of importance.

III. RESPONSIBILITIES

1. Checks traffic control devices placed by the contractor, at least once each operating day and after any changes are made to the traffic control set up during a workday.
2. Checks traffic control during the night immediately following initial set up and after major changes to the traffic control to determine that the level of retro reflectivity is adequate and the devices are clearly visible and legible.
3. Temporarily shutdown the contractor, if any circumstances are recognized that would be life threatening, until all necessary corrections are complete and conditions are safe for all parties.
4. Evaluates traffic and pedestrian flow in and adjacent to construction area.
5. Checks and evaluates contract traffic control layout, found in approved Traffic Control/ MOT Plans.
6. Immediately bring to the Contractor's attention, any deficiencies in the Contractors Traffic Control. That is not from the Traffic Control Plan or MOT Plan.
7. Checks pavement markings for proper removal of obliterated paint lines and that new temporary traffic control lines are adequate.

The following are things the UDOT Inspector should be looking to enforce on job-sites

1. All traffic control devices meet NCHRP 350 compliance.

2. Reflective sheeting on signs and devices meet UDOT specifications.
3. All traffic control signs and devices are to be clean and in good working condition.
4. Signs need to be checked for size and spacing.
5. Check for double signs when appropriate (when signs are placed on both left and right side of roadway)
6. Spacing between channelization devices are to be checked.
7. Check to see if Traffic Control is set up as per Traffic Control Plan.
8. Check length of the Taper to the speed limit.
9. Check to see if traffic control supervisor is ATSSA Certified or UDOT Certified.
10. Arrow boards and changeable message boards should be checked for the following:

Proper size for the road

Proper alignment to the road

Checked for alignment to the driver

Checked to be level with the road

All lights or letters to be working

Proper brightness for day or night operation

Legends can be read in time allowed on CMB

Limit of two legends in series on CMB

11. UDOT Resident Engineer should receive certified crash tested letter on each device, prior to each job starting.

IV. TRAFFIC CONTROL DEVICES

The quality of the work zone devices, have been divided into three categories. They are acceptable, marginal, and unacceptable. At the time of the initial set up or at the time of major changes of traffic control, 100 percent of each type of device (signs, vertical panels, drums, warning lights, arrow panels, changeable message signs, pavement tape and raised pavement markers) shall be classified as “acceptable”. Throughout the duration of the project, the number of acceptable devices may decrease to 75 percent of the initial quantity, as a result of damage and /or deterioration during the course of the work with the remainder of the

devices in the marginal category. Unacceptable devices or situations that are found on the job site shall be replaced or the situation corrected within 12 hours of notification or as specified in the contract specifications.

1. ACCEPTABLE: devices that meet the quality requirements herein for this classification and all other requirements such as design, size, color, weight, etc. in the plans and specifications, shall be considered to be acceptable for use on highway construction or contract maintenance projects.
2. MARGINAL: The term “Marginal” for the purpose of this manual means “marginally acceptable”, reaching the lower end of acceptability. Devices that meet the quality criteria for marginal as described in this manual may remain in the work zone until their number exceeds the specified percentage of that type of device or until it is determined that they have become unacceptable.
3. UNACCEPTABLE: Devices in this category shall not be delivered to the job site. When found in the work zone, they shall be replaced or repaired within 12 hours of notification or as contained in the contract specifications.

Application of this standard provides the means to meet the requirements of Section 1A-2 of the Federal Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) which states:

“Maintenance of devices should be to high standards to assure that legibility is retained, that the device is visible, and that it is removed if no longer needed. Clean, legible, properly mounted devices in good working condition command the respect of vehicle operators and pedestrians.”

1. WORK ZONE SIGNS

Acceptable

There are several abrasions on the surface but very little loss of lettering. There has been no touch-up of the lettering. This message is legible per the design criteria of the MUTCD.

Marginal

Of the several surface abrasions throughout the sign face, many are within the individual letters of the message. The sign surface is free of

any residue. Although some color fading is evident, the background color and reflectivity are still apparent at night. The message is legible per the design criteria of the MUTCD.

Unacceptable

Signs with asphalt splatted or cement slurry on them, of an amount similar to the abrasions that are evident throughout the face of the sign are unacceptable. Some letters have a loss of more than 50 percent. There is a noticeable color fading. The message is illegible per the design criteria of the MUTCD.

2. Type I, II, III Barricade Panels or Vertical Panels

Acceptable

Panels are not deformed to an extent so as to decrease the panels target value. There are several abrasions on the surface but very little loss for reflective sheeting. The Orange is vivid and the stripes provide contrast.

Marginal

There are numerous surface abrasions throughout the panel surface. Some color fading is evident, however, it is free of large areas of residue. Or missing reflective material. The Orange is vivid and the stripes provide contrast.

Unacceptable

The surface is marred over a high percentage of the panel area. There is noticeable loss of reflectivity and obvious color fading. Panels with asphalt splatter and/or cement slurry, or any combination of missing and covered reflective material would make the panel unacceptable.

3. DRUMS

Acceptable

The sheeting has only minor tears and scratches. Any dents in the drum that does not seriously reduce the reflectivity. The drum maintains its intended original shape.

Marginal

The sheeting has few tears and scratches; however, it is free of large areas of residue, or missing reflective material. Any large dents in the

Drum that reduces the effectiveness of only the upper reflective band, and the drum strength is not reduced. The drum maintains its intended original shape.

Unacceptable

Large areas of missing reflective material on the fractured upper area make a drum unacceptable. Drums with asphalt Splatter and/or cement slurry, or any combination of missing and covered reflective material, similar in area to the missing reflective material would also make a drum unacceptable. Substantial deformation of a drum, which reduced the original dimensions, may cause the drum to be considered as “unacceptable” even if other parameters are still “acceptable”.

4. Warning Lights

Acceptable

More than 90 percent of the Type A or C and 100 percent of Type B lights meeting the MUTCD specifications are working.

Marginal

Not less than 90 percent of the Type A or C warning lights meeting the MUTCD specifications are working with no more than 3 adjacent lights failing.

Unacceptable

Less than 90 percent of the Type A or C warning lights meeting the MUTCD specifications, or more than 3 adjacent lights failing, or more than 1 Type B warning light failing for more than 12 consecutive hours or as specified in the contract documents.

5. Arrow Panels

Acceptable

Not more than one lamp out, in a stem. No lamps out in the arrowhead, and dimming properly.

Marginal

2 or less, lamps in a stem out. No lamps out in the head Dimming properly.

Unacceptable

Any lamp out in the head, or more than 2 lamps out in the stem, or arrow panel not dimming properly.

6. Changeable Message Signs

Acceptable

90 percent or more of the pixels per character module are operating properly

Marginal

No less than 90 percent of the pixels per character module are operating properly.

Unacceptable

Less than 90 percent of the pixels per character module are operating properly or not performing within the criteria of the MUTCD.

7. Pavement Tape and Paint

Acceptable

All pavement Marking Tape or paint required (solid and skip lines) is in place and meet's all material specifications.

Marginal

No more than 10 percent of all tape, paint, message or symbol missing. Or no more than 2- consecutive, skip lines. And no more than 50 continuous feet, of solid line is missing.

Unacceptable

More than 10 percent of all tape, paint, message or symbol missing. More than two consecutive skip lines. Or more than 50 continuous feet, of solid line is missing.

8. Temporary Raised Pavement Markers

Acceptable

All temporary raised pavement markers required are in place and meet all

material specifications.

Marginal

No more than 10 percent of the total raised pavement markers or no more than three consecutive temporary raised pavement markers are missing

Unacceptable

More than 10 percent of the total raised pavement markers or no more than three consecutive temporary raised pavement markers are missing

TRAFFIC CONTROL DEVICES

Should:

Meet UDOT Standards,

Fill a need

Command Attention

Convey a Clear and Simple Meaning

Command respect of Road Users

Give Adequate Time for Proper Response

Traffic Control

SPEC	INSPECTION LEVEL	INSPECTION OBJECTIVE	INSPECTOR ACTIVITY
01554	Important	<p>Ensure the safety of the traveling Public</p> <p>Ensure Traffic Control plan has been approved.</p> <p>Ensure devices and systems meet NCHRP-350 report requirements</p> <p>Ensure traffic signs conform to the MUTCD.</p> <p>Ensure Traffic Control Maintainer is Certified by the Department or American Traffic Safety Services Association (ATSSA)</p> <p>Flaggers have a current flagging certificate and must present proof of certification upon request by the Department.</p>	<p>Before erecting signs: Inspect condition of sign panels and supports and any allowable repairs that have been made.</p> <p>Perform and document nighttime inspection to verify that sign has proper illumination</p> <p>Traffic Control Maintainer has completed a daily record of traffic control activities using a form acceptable to the Resident Engineer Form C-110</p> <p>Inspector has made a daily note in his/her diary on the traffic control and condition of roadway.</p>

CHPATER TWO – Check List

Confirming	Attributes
YES () NO () N/A ()	Reviewed assigned functions and then reviewed the contract plans, specifications, and special provisions, noting all provisions applicable to the assigned responsibilities.
YES () NO () N/A ()	Reviewed Contractors approved Traffic Control Plan & MUTCD
YES () NO () N/A ()	Contractor person for Traffic Control Maintainer has been Certified by the Department or by the American Traffic Safety Services. And Certification is current.
YES () NO () N/A ()	Flaggers have a current Flagging Certification and comply with to the Department's Flagger Training Handbook
YES () NO () N/A ()	Contractor TCM has submitted a C-110 or other inspection form approved by the Resident Engineer. Which has been inspected at least four times each day, at least one of which must be conducted during nighttime hours
YES () NO () N/A ()	Inspector reviews safety requirements for the assigned work, reviews MUTCD, and any other safety manuals that may be pertinent and discusses any anticipated problems with the Level IV Inspector or Engineer.
YES () NO () N/A ()	Completed a Daily Diary on all events for the day.
YES () NO () N/A ()	Have reviewed all documentation / Certifications and handed all information into the Resident Engineers office.

NOTES:

This image shows a blank sheet of white paper with horizontal ruling lines. There are 18 lines in total, evenly spaced from top to bottom. At the beginning of each line, there is a small, dark gray icon of a pen nib or arrow pointing to the right. The lines extend across the entire width of the page.

NOTES:

[illegible]